

LEADING THE WAY IN ENERGY





Reykjavík Energy

Values and objectives

Reykjavík Energy takes great pride in meeting its customer's needs and ensuring a quality service, where all matters of concern are resolved quickly and efficiently. Our employees take every step necessary to keep our customers informed about our products and services.

Our values are Integrity, Foresight and Efficiency. These are the principles that guide us in all our business endeavours.

Reykjavík Energy was established in 1999, when Rafmagnsveita Reykjavíkur (Reykjavík Electricity) and Hitaveita Reykjavíkur (Reykjavík District Heating) merged. Vatnsveita Reykjavíkur (Reykjavík Water Works) became a part of the new company at the beginning of the year 2000 and was joined six years later by the water utility services in Akranes, Borgarbyggð and Reykjavík.

Reykjavík Energy's operation has expanded substantially since its foundation and now operates in the south and west of Iceland, including the Reykjavík area.

The company is a partnership owned by three municipalities; Reykjavík, Akranes and Borgarbyggð. The company supplies more than half of the population with geothermal heating, water and electricity as well as operating the sewage system and enabling network services.

Our operation is mostly reliant upon the utilisation of natural resources. We distribute cold water from our groundwater reservoir in Heiðmörk, in the Reykjavík area. We harness hot water from low temperature fields in Reykjavík and also produce it in high temperature fields by heating up cold groundwater. We produce electricity by using geothermal, high-pressure steam at our

plants at Hellisheiði and Nesjavellir and by utilising hydropower at our power stations, located in the Elliðaár and Andakilsá Rivers.

Our goal is to utilise these natural resources in the most renewable way possible, and our employees have an extensive knowledge of the procurement and distribution of power and water to the public and to the private sector.

Reykjavík Energy produces energy for domestic use and for business. We sell our own energy, produced by us and also purchase energy from Landsvirkjun, at wholesale prices in a competitive market. Our service area covers six municipalities in the Faxaflóa area, reaching over half of the Icelandic population.

Reykjavík Energy is a certified company and operates in conformity with international standards, including ISO 9001 – The International Standard for Quality Management systems, ISO 14001 – The International Standard for Environmental Management Systems and OHSAS 18001 – An international occupational health and safety management system specification. The water supply and sewage system are also certified.

Reykjavík Energy makes every effort to meet the highest standards possible in its operation and in training its staff, in order to reach its objectives. Environmental issues play an important role in all our business adventures.



Reykjavík Water Works began operations in **1909**, giving the local Reykjavík community access to clean water.

In **1921**, the power station by the Elliðaár River began operations and the Reykjavík Electricity Company was born.

In **1930**, the Reykjavík District Heating began operations and the first houses in the Reykjavík area were supplied with heating from the Þvottalaugar springs, in Laugardalur.



Environmentally Friendly Power Plants

Environmentally friendly energy utilisation

Reykjavík Energy produces, distributes and sells electricity, hot water and cold water, in addition to operating the wastewater system in densely populated areas in Iceland. Our service area covers 20 municipalities with a population of approximately 210 thousand people; about 70% of the population.

Our heating distribution system is one of the largest geothermal energy providers in the world, with an annual production of 70 million m³. Hot water is most extensively produced in the Nesjavellir area but is also produced in a number of other regions, including the Hellisheiði area. The hot water pipelines stretch across moors, lava fields and vast valleys, covering a total length of 3000 km. It is interesting to note that it would otherwise take over 560 thousand tonnes of coal or about 360 thousand tonnes of oil to heat up the capital. To put this into perspective; the coal heap would be 61 metres in height and the back to back line of transportation vehicles would be 660 miles in length.

The proportion of renewable energy, utilised by the nation is approximately 70%; a figure that has proved unattainable so far by the rest of the world.

The Hengill area is one of the largest geothermal areas in Iceland. The geothermal energy found there is linked to three volcanoes in the area. Reykjavík Energy operates two geothermal power plants in the Hengill area; Nesjavellir Power Plant and Hellisheiði Power Plant.

Geothermal power plants must provide sufficient steam and water to be able to produce electricity and hot water for domestic heating purposes. The production of electricity takes place in the electrostatic generator of the power plant and the production of hot water takes place in the thermal station of the power plant.

The Nesjavellir and Hellisheiði Power Plants have long since been considered symbols of the vast expertise that has been built up in the field of geothermal energy in Iceland. Both serve the same purpose; to produce hot water for domestic heating and electricity in the capital and to provide electricity to energy intensive industries and the common market.

Reykjavik Energy's operation promotes healthy living conditions for the public. However, the utilisation of energy can have a downside, as hydrogen sulphide is released into the atmosphere and brings with it an odour similar to that of rotten eggs. This is carefully monitored and systematic efforts are made to reduce its concentration in the atmosphere.

The liquid that remains once the energy has been utilised in the plant is called run-off water. This is sent back into the geothermal system, in order to make better use of resources and to protect groundwater and surface water. The impact of run-off water on groundwater is closely monitored.

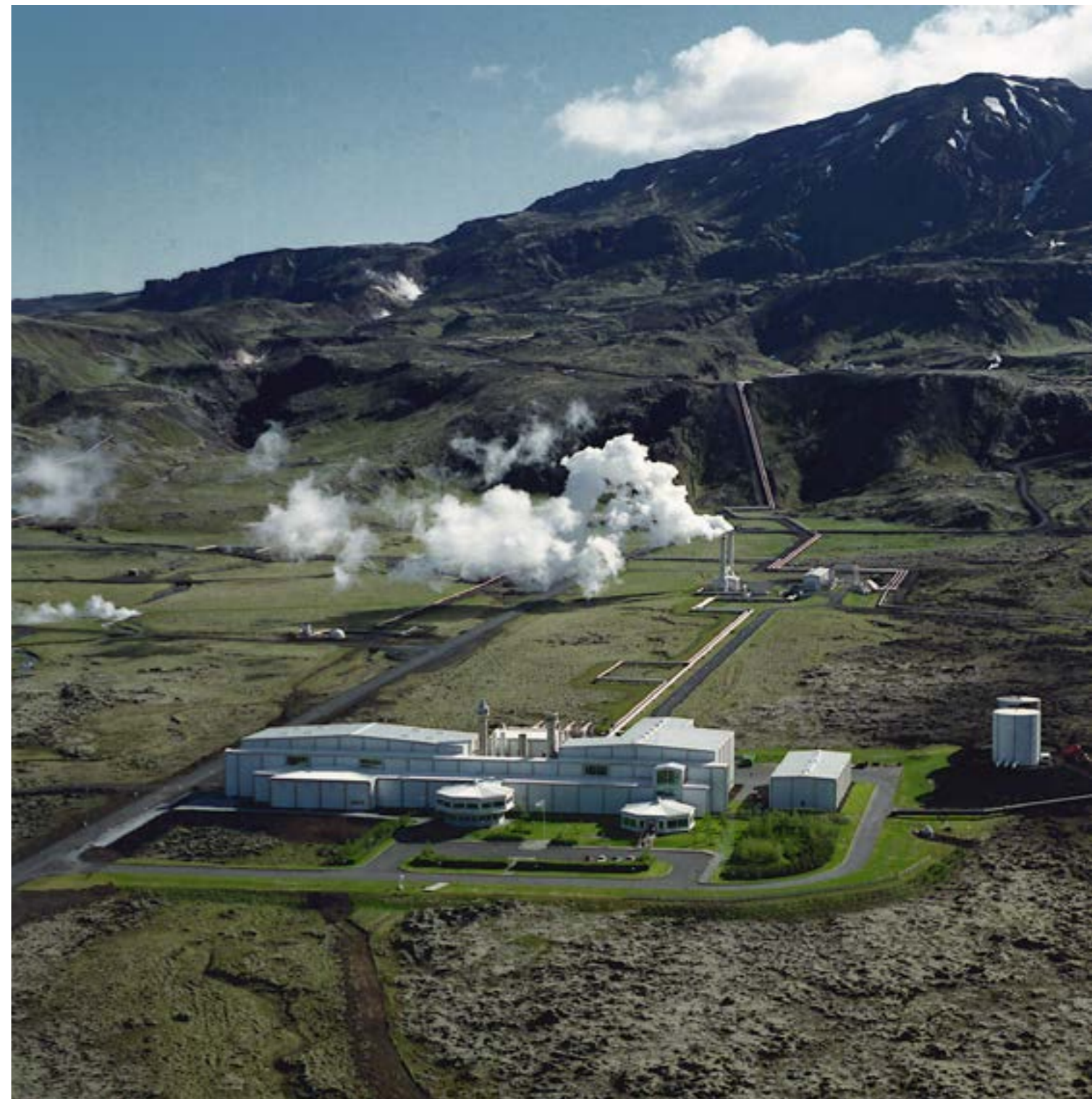
In 2012, a new position was created and a Restoration Manager was appointed to monitor the power station sites for Reykjavik Energy. This was done in order to reduce any damage caused by the construction of the sites to the local flora, and to cultivate the region around the power plants.

The sites are regularly monitored to assess the inevitable disruption caused by construction work in the area.

Nesjavellir Power Plant began operations in 1990, in the northernmost region of the Hengilssvæði area. It has an installed capacity of 120 MW of electricity and 300 MW of thermal energy.

Hellisheiði Power Plant began producing electricity in 2006, in the southernmost region of the Hengilssvæði area. It has an installed capacity of 303 MW of electricity and 133 MW of thermal energy.

Reykjavik Energy also operates two hydropower stations. One of them is in the Ellidaárdalur Valley and the other is in Andakíl, in Borgarfjörður. Their combined capacity is 11.4 MW. The hydroelectric power stations only produce electricity.





Clean Water

Invaluable to our quality of life

Most people take their access to fresh drinking water for granted. Access to clean and fresh water is seen as a factor in assessing the 'quality of life' people enjoy. Reykjavík Energy is responsible for the reliable supply of water to households and businesses nationwide. Indeed, many companies in Iceland rely on the supply of fresh, clean water. Most of the cold water supply for the capital is produced in the Heiðmörk Nature Reserve and is only sourced from the groundwater in the area. The area is protected

and most of the water originates from the Húsafellsbruna lava field and the Bláfjöll Mountains. Monitoring the area is therefore of utmost importance and Reykjavík Energy is vigilant in its supervision. The quality of the water is also closely monitored and any transportation of possibly hazardous materials in the area is heavily regulated. Reykjavík Energy is fully aware of its obligations and the responsibility that goes with ensuring the safe supply of fresh water to the public, and to future generations.

Wastewater System

Services under the surface

The role of the wastewater system is to provide drainage from urban and commercial operations and to discharge the matter into the ocean, in strict accordance with the highest standards of environmental protection. Wastewater is transported through pipes and is pumped two to three times through a treatment centre on the way. The treated water is then discharged into the sea approximately 4 to 5 km from the shore, in order to prevent the contamination of beaches and bathing areas along the coastline.

Improvements are being made to the wastewater system in Akranes and Borgarnes and work is expected to reach completion by 2016. Reykjavík Energy operates four organic treatment facilities in urban areas in Borgarfjordur: Bifrost, Hvanneyri, Reykholt and Varmaland. The treatment is completed in two stages and natural sunlight is utilised to reduce micro biotic contamination, in order to protect the ecosystem.



A valuable resource

Reykjavik Energy is responsible for the supply of safe drinking water and hot water for domestic heating purposes, all year round. We also produce electricity at a price that is much lower than in our neighbouring countries.

Private households and businesses utilise the run-off water from the heating to heat their driveways, pavements and car parks. The Reykjavík City Council has taken advantage of this to keep pavements in the city heated, in order to prevent black ice forming. Reykjavík Energy also supports the operation of a number of swimming pools in the Reykjavík area and regards this as a public service to the vast number of people who frequent the swimming pools and spas every year.

A Responsible Environmental Policy

Organised and clear objectives

A new Environment and Natural Resources Energy Policy took effect at the end of 2012. Attitudes toward the environment, within society are evolving constantly and Reykjavík Energy therefore felt that the issue should receive greater attention in all the company's operations.

The policy is intended to shed light on the attitudes of the board and the staff members of Reykjavík Energy, towards environmental issues and also describes and outlines the company's intentions in these matters. Important environmental factors

have been identified, so that environmental issues can be dealt with efficiently and effectively and so that the various responsibilities taken on by staff members are clearly defined and equally assigned. The diverse nature of operations calls for close monitoring, effective mitigation measures and supervision. It also requires close and open communication with the public, licensed providers and government agencies.

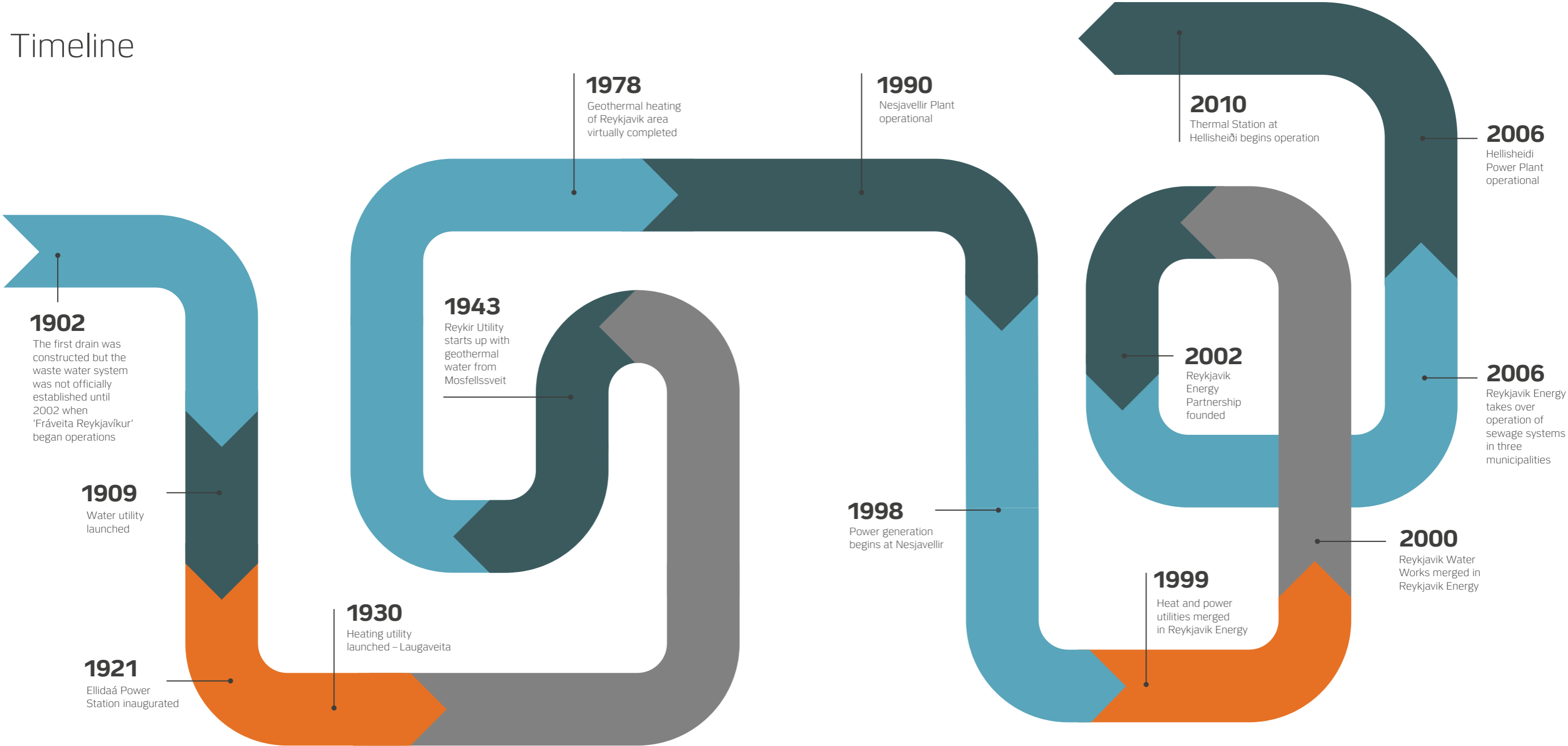
Human Resources are the Foundation

Equality, expertise and progress

Reykjavík Energy has an effective equality policy. The proportion of women in management is now higher than ever before, at 32%. The education and experience of the staff is tremendously diverse including engineers, geologists, electricians, technicians and office administration. Construction management, design and operation is based upon a variety of engineering skills. Energy production and the construction and operation of our power stations is based upon years of extensive geological research, conducted by the most talented scientists in the field.

Nearly one hundred years of experience in providing a dependable water supply and seventy years of experience in the operation of district heating has provided us with a vast knowledge base. Our employees are experts in diverse drilling methods such as the directional drilling method, used with great success in the geothermal Hengill area. These skills have made it possible for us to access hot water from a great distance (far from the drilling starting points), and has also meant minimal disruption to the environment.

Timeline



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